ELCOT Adding Value through IT	**Electronics Corporation of Tamil Nadu Limited**
Rate Contract Tender	**Supply, installation and Commissioning of UPS Systems with related accessories** **Tender Ref. ELCOT/PROC/OT/32602/UPS Systems/2013-14**
	Corrigendum No. 1 to the Tender Document

CORRIGENDUM NO. 1 TO THE TENDER DOCUMENT

The following Amendment to the Tender Document is hereby issued:-

Sl. No.	Page No.	Clause & Title	Existing Clause	To Read As
1	9 of 91	2. Tender Schedule	Due Date, Time and Place of submission of Tender On 18/07/2013 at 5.00 PM at the address mentioned in Column (1) above.	Due Date, Time and Place of submission of Tender On 12/09/2013 at 3.00 PM at the address mentioned in Column (1) in the Tender Schedule
2	10 of 91	2. Tender Schedule	Date, Time and Place of opening of the Technical Bids On 18/07/2013 at 5.15 PM at the address mentioned in Column (1) above.	Date, Time and Place of opening of the Technical Bids On 12/09/2013 at 3.15 PM at the address mentioned in Column (1) in the Tender Schedule
3	29, 30, 31 of 91	6.5.1 Technical Bid (Envelope -A)	"Technical Bid (Envelope-A) for supply of UPS SYSTEMS AND RELATED ACCESSORIES – Tender No. ELCOT/PROC/OT/32602/UPS SYSTEMS/ 2013-14 due on 18.07.2013 @ 3.00 PM".	"Technical Bid (Envelope-A) for supply of UPS SYSTEMS AND RELATED ACCESSORIES – Tender No. ELCOT/PROC/ OT/ 32602/ UPS SYSTEMS/ 2013-14 due on 12.09.2013 @ 3.00 PM".
		6.5.2 Price Bid (Envelope-B)	"Price Bid (Envelope-B) for supply of UPS SYSTEMS AND RELATED ACCESSORIES – Tender No. ELCOT/PROC/OT/32602/UPS SYSTEMS/ 2013-14 due on 18.07.2013 @ 3.00 PM".	"Price Bid (Envelope-B) for supply of UPS SYSTEMS AND RELATED ACCESSORIES – Tender No. ELCOT/PROC/ OT/ 32602/ UPS SYSTEMS/ 2013-14 due on 12.09.2013 @ 3.00 PM".
		6.6.1 Outer Cover	Tender for supply of UPS SYSTEMS AND RELATED ACCESSORIES – Tender No. ELCOT/PROC/OT/32602/UPS SYSTEMS/ 2013-14 due on 18.07.2013 @ 3.00 PM"	Tender for supply of UPS SYSTEMS AND RELATED ACCESSORIES – Tender No. ELCOT/PROC/OT/32602/UPS SYSTEMS/ 2013-14 due on 12.09.2013 @ 3.00 PM"
4	13 of 91	4 – Eligibility Criteria	2. UPS – OEM or their authorized Dealer / Distributor	2. UPS – OEM or their authorized Dealer / Distributor

			are only eligible to Bid. Letter of Authorisation from the **Battery** Manufacturer to represent their product for this Tender.	are only eligible to Bid. Letter of Authorisation from the **UPS** Manufacturer to represent their product for this Tender.
6	42 of 91	9. Scope of Work	9.1 (a) (b) Sample Submission For each item quoted in the Tender, the samples should be submitted indicating the make, model number and brouchers / specification of the items for benchmark testing by ELCOT as per Appendix-3 of the Tender. Already approved Make and Model need not be submitted for fresh evaluation. The bidders have to submit the samples **atleast 7 days after tender opening date, during the office hours, as per the date indicated in this tender document.**	For each item quoted in the Tender, the samples should be submitted indicating the make, model number and brouchers / specification of the items for benchmark testing by ELCOT as per Appendix-3 of the Tender. Already approved Make and Model need not be submitted for fresh evaluation. The bidders have to submit all the samples **before the tender opening date, during the office hours, as per the date indicated in the tender document / corrigendum.** The Bidder should arrange for evaluation of UPS Systems (all backup as mentioned in the Tender Document) at ELCOT. Factory Test Report for the UPS Systems with all back up for the Sample Items as per tender specifications shall be submitted along with the Technical Bid. Failing which the bidder's offer will be treated as **NON-RESPONSIVE AND THEIR BID WILL BE REJECTED.**
7	17 of 91 70 of 91	5. Specifications A1.5 Hardware Compliance	**1 KVA – LIA UPS – 30, 60, 120 and 240 Minutes Back up** Battery Storage Box - Batteries should be provided inside the UPS Systems.	**1 KVA – LIA UPS – 30, 60, 120 and 240 Minutes Back up** Internal or External Storage Box / MS-Rack for housing the Batteries.
8	15 of 91	5. Specifications	**600 VA LIA – UPS – 30 Minutes**	**600 VA LIA – UPS – 30 Minutes**

	68 of 91	A1.5 Hardware Compliance	Battery (Secondary Source) - Sealed maintenance free (SMF) type – AH and No. of Batteries shall be suitable selected for required backup time at 360W Resistive Load.	Battery (Secondary Source) - Sealed maintenance free (SMF) type – AH and No. of Batteries shall be suitable selected for required backup time at 360W Resistive Load. Minimum 390 VAH rating of battery should be given and also Sealed Maintenance Free (SMF) type – AH and no. of Batteries shall be suitably selected for required backup time at 360W Resistive Load.
9	17 of 91 70 of 91	5. Specifications A1.5 Hardware Compliance	**1 KVA – LIA UPS – 30, 60, 120 and 240 Minutes Back up.** Battery Secondary Source - Sealed maintenance free(SMF) type – AH and no. of batteries shall be suitably selected for the required backup time at 600w resistive Load or 1.0 KVA load with 0.6 PF. The details are to be specified by the tenderer along with the make of the battery. (Number of Batteries and Voltage & AH of each Battery)	**1 KVA – LIA UPS – 30, 60, 120 and 240 Minutes Back up.** AH and no. of Batteries shall be suitably selected for the respective minimum backup time of 60% Resistive Load. Minimum VAH rating of battery bank should be as given below:- 30 Minutes – 750 VAH 60 Minutes – 1500 VAH 120 Minutes – 3000 VAH 240 Minutes – 6000 VAH Sealed maintenance free (SMF) type – AH and No. of Batteries shall be suitable selected for required backup time.
10	19 of 91 72 of 91	5. Specifications A1.5 Hardware Compliance	**1 KVA Online UPS – 30, 60, 120 and 240 Minutes Back up.** Sealed maintenance free(SMF) type – AH and no. of batteries shall be suitably selected for the required backup time at 700w resistive Load or 1.0 KVA load with 0.7 PF. The details are to be specified by	**1 KVA Online UPS – 30, 60, 120 and 240 Minutes Back up.** AH and no. of Batteries shall be suitably selected for the respective minimum backup time of 70% Resistive Load. Minimum VAH rating of battery bank should be as given below:-

			the tenderer along with the make of the battery. (Number of Batteries and Voltage & AH of each Battery)	30 Minutes – 790 VAH 60 Minutes – 1580 VAH 120 Minutes – 3160 VAH 240 Minutes – 6320 VAH Sealed maintenance free (SMF) type – AH and No. of Batteries shall be suitable selected for required backup time.
11	21 of 91 75 of 91	5. Specifications A1.5 Hardware Compliance	**2 KVA Online UPS – 30, 60, 120 and 240 Minutes Back up.** Sealed maintenance free(SMF) type – AH and no. of batteries shall be suitably selected for a backup time of 30 mins. (minimum) at 1400w resistive Load or 2.0 KVA load with 0.7 PF. The details are to be specified by the tenderer along with the make of the battery	**2 KVA Online UPS – 30, 60, 120 and 240 Minutes Back up.** AH and no. of Batteries shall be suitably selected for the respective minimum backup time of 70% Resistive Load. Minimum VAH rating of battery bank should be as given below:- 30 Minutes – 1580 VAH 60 Minutes – 3160 VAH 120 Minutes – 6320 VAH 240 Minutes – 11640 VAH Sealed maintenance free (SMF) type – AH and No. of Batteries shall be suitable selected for required backup time.
12	23 of 91 78 of 91	5. Specifications A1.5 Hardware Compliance	**3 KVA Online UPS – 30, 60, 120 and 240 Minutes Back up.** Battery (Secondary Source) Sealed maintenance free(SMF) type – and no. of batteries shall be suitably selected for a backup time of 30 minutes minimum at 2100W resistive Load or 3.0 KVA load with 0.7 PF. The details are to be specified by the tenderer alongwith the make of the battery .	**3 KVA Online UPS – 30, 60, 120 and 240 Minutes Back up.** AH and no. of Batteries shall be suitably selected for the respective minimum backup time of 70% Resistive Load. Minimum VAH rating of battery bank should be as given below:- 30 Minutes – 2350 VAH 60 Minutes – 4700 VAH 120 Minutes – 9400 VAH 240 Minutes – 18800 VAH Sealed maintenance free (SMF)

				type – AH and No. of Batteries shall be suitable selected for required backup time.
13	25 of 91 81 of 91	5. Specifications A1.5 Hardware Compliance	**5 KVA Online UPS – 30, 60, 120 and 240 Minutes Back up.** Battery (Secondary Source) Sealed maintenance free(SMF) type – and no. of batteries shall be suitably selected for a backup time of 30 minutes minimum at 3500W resistive Load or 5.0 KVA load with 0.7 PF. The details are to be specified by the tenderer alongwith the make of the battery .	**5 KVA Online UPS – 30, 60, 120 and 240 Minutes Back up.** AH and no. of Batteries shall be suitably selected for the respective minimum backup time of 70% Resistive Load. Minimum VAH rating of battery bank should be as given below:- 30 Minutes – 3950 VAH 60 Minutes – 7900 VAH 120 Minutes – 15800 VAH 240 Minutes – 31600 VAH Sealed maintenance free (SMF) type – AH and No. of Batteries shall be suitable selected for required backup time.
14	16, 18, 20, 22, 24, 26 of 91 69, 71, 74, 77, 80, 83 of 91	5. Specifications A1.5 Hardware Compliance	**600VA LIA UPS** **1 KVA LIA UPS (30, 60, 120 & 240 Minutes Backup)** **1 KVA Online UPS (30, 60, 120 & 240 Minutes Backup)** **2 KVA Online UPS (30, 60, 120 & 240 Minutes Backup)** **3 KVA Online UPS (30, 60, 120 & 240 Minutes Backup)** **5 KVA Online UPS (30, 60, 120 & 240 Minutes Backup)** **Certification:** SAMEER / ETDC / ERTL / NABL Certification Mandatory for this specification (issued within last 3 years)	**600VA LIA UPS** **1 KVA LIA UPS (30, 60, 120 & 240 Minutes Backup)** **1 KVA Online UPS (30, 60, 120 & 240 Minutes Backup)** **2 KVA Online UPS (30, 60, 120 & 240 Minutes Backup)** **3 KVA Online UPS (30, 60, 120 & 240 Minutes Backup)** **5 KVA Online UPS (30, 60, 120 & 240 Minutes Backup)** **Certification:** SAMEER / ETDC / ERTL / NABL's Accredited Testing Laboratories Certification for any back up of each UPS Category Mandatory for this specification (issued within last 6 years)
15	15, 17, 19, 21, 23, 25 of 91	5. Specifications	**Inverter Type** - MOSFET / IGBT (Make and current capacity to be specified by the tenderer)	**Inverter Type** - IGBT (Make and current capacity to be specified by the tenderer)

	68, 70, 72, 75, 78, 81	A1.5 Hardware Compliance		
16	15, 17 of 91 68, 70 of 91	5. Specifications A1.5 Hardware Compliance	**Voltage Regulation:** 198V to 242V	**Deleted**

Other Terms & Conditions, Tender specifications of the Original Tender Document remain unchanged.

NOTE:- The Bidders are requested to submit their COMPLIANCE TO THE TECHNICAL SPECIFICATIONS as per the Tables given below which include the Corrigendum as stated above.

A1.5 Hardware Compliance

The Bidders should submit the details of the make and model of each item offered against the tender requirement and samples for the same need to be submitted for evaluation.

UPS Systems:-

SN	Item Code	Item Description	Item Quoted Details along with Make & Model
1	LIA 600-30	600 VA LIA UPS – 30 Minutes	
2	LIA 1000-30	1 KVA LIA UPS – 30 Minutes	
	LIA 1000-60	1 KVA LIA UPS – 60 Minutes	
	LIA 1000-120	1 KVA LIA UPS – 120 Minutes	
	LIA 1000-240	1 KVA LIA UPS – 240 Minutes	
3	OL-1000-30	1 KVA Online UPS – 30 Minutes	
	OL-1000-60	1 KVA Online UPS – 60 Minutes	
	OL-1000-120	1 KVA Online UPS – 120 Minutes	
	OL-1000-240	1 KVA Online UPS – 240 Minutes	
4	OL-2000-30	2 KVA Online UPS – 30 Minutes	
	OL-2000-60	2 KVA Online UPS – 60 Minutes	
	OL-2000-120	2 KVA Online UPS – 120 Minutes	
	OL-2000-240	2 KVA Online UPS – 240 Minutes	
5	OL-3000-30	3 KVA Online UPS – 30 Minutes	
	OL-3000-60	3 KVA Online UPS – 60 Minutes	
	OL-3000-120	3 KVA Online UPS – 120 Minutes	
	OL-3000-240	3 KVA Online UPS – 240 Minutes	
6	OL-5000-30	5 KVA Online UPS – 30 Minutes	
	OL-5000-60	5 KVA Online UPS – 60 Minutes	
	OL-5000-120	5 KVA Online UPS – 120 Minutes	
	OL-5000-240	5 KVA Online UPS – 240 Minutes	

COMPLIANCE STATEMENT FOR ITEM Code LIA600-30

Parameter	Details	Bidders Offer	Whether confirming to the tender specification Yes/ NO
Capacity	600VA LINE INTERACTIVE UPS with 0.6 PF		
Back-up Time	30 Minutes		
Inverter Type	**Inverter Type** - IGBT (Make and current capacity to be specified by the tenderer)		
INPUT			
Mains Voltage Regulation	150 - 270V AC, SINGLE PHASE		
Frequency with Tolerance	50 Hz, +/- 3 Hz		
Battery (Secondary Source)	Sealed maintenance free (SMF) type – AH and No. of Batteries shall be suitably selected for required backup time at 360W Resistive Load. Minimum 390VAH rating of battery should be given and also Sealed Maintenance Free (SMF) type – AH and No. of Batteries shall be suitably selected for required backup time at 360W Resistive Load.		
Battery Storage Box	Batteries should be provided inside the UPS Systems.		
OUTPUT			
Nominal Voltage	Output Nominal Volage – 220V / 230V AC, Output Voltage Regulation (+/-1%)		
Frequency	50 Hz, +/-(0.2) HZ		
Waveform	Quasi/Pure Sine wave (Square wave not accepted)		
Transfer time	Transfer Time less than 6 msec, typical		
Load power factor	0.6 lag to unity		

Parameter	Details	Bidders Offer	Whether confirming to the tender specification Yes/ NO
Capacity	600VA LINE INTERACTIVE UPS with 0.6 PF		
OTHER / GENERAL DATA			
Atomatc Voltage Regulators	To be provided		
Ambient Temperature range	To be specified by the tenderer		
Protections	Fuses for Input, Over load, over, under Voltage, short circuit, battery reverse, Lightening Protection		
Indications	Mains ON, Inverter ON, Battery Low, Overload.		
Alarms (Audio)	To be provided for low voltage condition for battery.		
Auto cut OFF	The UPS systems output should be cut off during no load conditions (Preferable)		
Power sockets	3 Nos. (5 Amps. capacity)		
Name Plate in the UPS	Name plate in UPS-Riveted metal plates / Stickers		
Software	Software for automatic shutdown of the system compatible with Linux (mandatory) and windows.		
Inverter Efficiency	Minimum 75%		
Total Harmonic Distortion	Maximum 40%		
Overload capacity	Overload Capacity withstand for 5 minutes at 110% load (660 Watts for Resistive Load /400Watts for Combinational Load).		

Certification	SAMEER / ETDC / ERTL / NABL's Accredited Testing Laboratories Certification for any back up of each UPS Category Mandatory for this specification (issued within last 6 years)		
ISO	ISO Certification Mandatory for the Manufacturing Process		

COMPLIANCE STATEMENT FOR ITEM Code LIA1000-30, LIA1000-60, LIA1000-120 AND LIA1000-240

Parameter	Details	Bidders Offer	Whether confirming to the tender specification Yes/ NO
Capacity	1KVA LINE INTERACTIVE UPS		
Back-up Time	For code LIA1000-30 – 30 minutes For code LIA1000-60 – 60 minutes For code LIA1000-120–120 minutes For code LIA1000-240 –240 minutes		
Inverter Type	**Inverter Type** - IGBT (Make and current capacity to be specified by the tenderer)		
INPUT			
Mains Voltage Regulation	150 - 270V AC, SINGLE PHASE		
Frequency with Tolerance	50 Hz, +/- 3 Hz		
Battery (Secondary Source)	AH and no. of Batteries shall be suitably selected for the respective minimum backup time of 60% Resistive Load. Minimum VAH rating of battery bank should be as given below:- 30 Minutes – 750 VAH 60 Minutes – 1500 VAH 120 Minutes – 3000 VAH 240 Minutes – 6000 VAH Sealed maintenance free (SMF) type – AH and No. of Batteries shall be suitable selected for required backup time.		
Battery Storage Box	Batteries should be provided inside the UPS Systems.		
OUTPUT			
Nominal Voltage	Output Nominal Voltage – 220V / 230V AC, Output Voltage Regulation (+/-1%)		
Frequency	50 Hz, +/-(0.2) Hz		
Waveform	Quasi/Pure Sine wave (Square wave not		

Parameter	Details	Bidders Offer	Whether confirming to the tender specification Yes/ NO
	accepted)		
Transfer time	4 - 6 msec. typical		
Load power factor	0.6 lag to unity		
OTHER / GENERAL DATA			
Atomatc Voltage Regulators	To be provided		
Ambient Temperature range	To be specified by the tenderer		
Protections	Fuses for Input, Over load, over, under Voltage, short circuit, battery reverse, Lightening Protection		
Indications	Mains ON, Inverter ON, Battery Low, Overload.		
Alarms (Audio)	To be provided for low voltage condition for battery.		
Auto cut OFF	The UPS systems output should be cut off during no load conditions (Preferable)		
Power sockets	3 Nos. (5 Amps. capacity)		
Name Plate in the UPS	Name plate in UPS-Riveted metal plates / Stickers		
Software	Software for automatic shutdown of the system compatible with Linux (mandatory) and windows.		
Inverter Efficiency	Minimum 75%		
Total Harmonic Distortion	Maximum 40%		
Overload Capacity	Overlod Capacity withstand for 5 minutes at 110% load (1100 Watts Resistive Load / 660 Watts Combinational Load).		
Certification	SAMEER / ETDC / ERTL / NABL's Accredited Testing Laboratories Certification for any back up of each UPS		

Parameter	Details	Bidders Offer	Whether confirming to the tender specification Yes/ NO
	Category Mandatory for this specification (issued within last 6 years)		
ISO	ISO Certification Mandatory for the Manufacturing Process		

COMPLIANCE STATEMENT FOR ITEM Code OL1000-30, OL1000-60, OL1000-120 AND OL1000-240

Parameter	Details	Bidders Offer	Whether confirming to the specification Yes/No
Capacity	1 KVA TRUE ONLINE UPS		
Back-up Time	For code OL1000-30 – 30 minutes For code OL1000-60 – 60 minutes For code OL1000-120 – 120 minutes For code OL1000-240 – 240 minutes		
Inverter Type	**Inverter Type** - IGBT (Make and current capacity to be specified by the tenderer)		
INPUT			
Mains Voltage Regulation	150 - 270V AC, SINGLE PHASE		
Input power factor	> 0.9		
Frequency with Tolerance	50 Hz, +/- 3 Hz		
Battery (Secondary Source)	AH and no. of Batteries shall be suitably selected for the respective minimum backup time of 70% Resistive Load. Minimum VAH rating of battery bank should be as given below:- 30 Minutes – 790 VAH 60 Minutes – 1580 VAH 120 Minutes – 3160 VAH 240 Minutes – 6320 VAH Sealed maintenance free (SMF) type – AH and No. of Batteries shall be suitable selected for required backup time.		
DC Bus voltage	To be specified by the tenderer		
Make of the Battery	Specify the Manufacturer Make, Model and enclose the technical sheet. The make and AH of the battery submitted for evaluation only will be accepted		
Battery Storage	External Storage Box / MS-Rack for housing		

Parameter	Details	Bidders Offer	Whether confirming to the specification Yes/No
Box	the Batteries.		
OUTPUT			
Nominal Voltage	**230 AC, Single Phase (+/-1%)**		
Voltage Regulation	± 1%		
Frequency	50 Hz, +/-(0.2) Hz		
Waveform	Pure Sine wave		
Load power factor	0.7 lag to unity		
OTHER GENERAL DATA			
Overload Capacity	Overload Capacity – Withstand for 5 minutes at 110% load (1100 Watts Resistive Load / 770 Watts Combinational Load)		
Total Harmonic Distortion	< 4% for Linear load and 5% for non linear load		
Efficiency	> 80%		
Ambient Temperature	To be specified by the tenderer (Preferable upto 50 Degree Celsius)		
Duty Cycle	Continuous		
Cooling	Forced air cooling		
Protections	1) Input, Output – Low and High 2) Battery low and high voltage 3) Input, output – Fuse 4) Battery - MCB/Fuse 5) Short circuit 6) Over load 7) Lightening		
Controls	Manual By-pass Switch and static bypass switch to be provided with Indications		
Power sockets	Power Sockets – 3 Nos. 5A / 15A capacity sockets with at least one 15A Socket.		
Trip Conditions	Over load, Over, Under voltage, Short		

Parameter	Details	Bidders Offer	Whether confirming to the specification Yes/No
	Circuit Indications Mains ON, Inverter ON, Battery Low, Overload.		
Alarms (Audio)	For extreme battery low voltage.		
Meters	Meters – AC Volt Meter for input and output. DC Volt Meter, Frequency Meter for output in Analog / Digital Mode.		
Manuals	Operating and User manual to be Provided		
Name Plate in the UPS	Name plate in UPS-Riveted metal plates / Stickers		
Isolation Transformer	Isolation Transformer must be provided internally / externally at input.		
Software	Software for automatic shutdown of the system compatible with Linux (mandatory) and windows.		
Certification	SAMEER / ETDC / ERTL / NABL's Accredited Testing Laboratories Certification for any back up of each UPS Category Mandatory for this specification (issued within last 6 years)		
ISO	ISO Certification Mandatory for the Manufacturing Process		

COMPLIANCE STATEMENT FOR ITEM Code OL2000-30, OL2000-60, OL2000-120 AND OL2000-240

Parameter	Details	Bidders Offer	Whether confirming to the specification Yes/No
Capacity	2 KVA TRUE ONLINE UPS		
Back-up Time	For code OL2000-30 – 30 minutes For code OL2000-60 – 60 minutes For code OL2000-120 – 120 minutes For code OL2000-240 – 240 minutes		
Inverter Type	**Inverter Type** - IGBT (Make and current capacity to be specified by the tenderer)		
INPUT			
Mains Voltage Regulation	150 - 270V AC, SINGLE PHASE		
Input power factor	> 0.9		
Frequency with Tolerance	50 Hz, +/- 3 Hz		
Battery (Secondary Source)	AH and no. of Batteries shall be suitably selected for the respective minimum backup time of 70% Resistive Load. Minimum VAH rating of battery bank should be as given below:- 30 Minutes – 1580 VAH 60 Minutes – 3160 VAH 120 Minutes – 6320 VAH 240 Minutes – 11640 VAH Sealed maintenance free (SMF) type – AH and No. of Batteries shall be suitable selected for required backup time.		
DC Bus voltage	To be specified by the tenderer		
Make of the Battery	Specify the Manufacturer Make, Model and enclose the technical specification sheet. The make and AH of the battery submitted for evaluation only will be accepted.		

Parameter	Details	Bidders Offer	Whether confirming to the specification Yes/No
Battery Storage Box	External Storage Box / MS-Rack for housing the Batteries.		
OUTPUT			
Nominal Voltage	**230V AC, Single Phase (+/-1%)**		
Voltage Regulation	± 1%		
Frequency	50 Hz, +/-(0.2) Hz		
Waveform	Pure Sine wave		
Load power factor	0.7 lag to unity		
OTHER / GENERAL DATA			
Overload Capacity	Overload Capacity: Withstand for 5 Minutes at 110% load (2200 Watts Resistive Load / 1540Watts Combinational Load).		
Total Harmonic Distortion	< 4% for Linear load and 5% for non linear load		
Efficiency	> 80%		
Ambient Temperature	To be specified by the tenderer (Preferable upto 50 Degree Celsius)		
Duty Cycle	Continuous		
Cooling	Forced air cooling		
Protections	1) Input, Output – Low and High 2) Battery low and high voltage 3) Input, output – Fuse 4) Battery - MCB/Fuse 5) Short circuit 6) Over load 7) Lightening		
Controls	Manual By-pass Switch and static bypass switch to be provided with Indications		
Power sockets	Power Sockets – 3 Nos. 5A / 15A capacity Sockets with at least one 15A Socket.		
Trip Conditions	Over load, Over, Under voltage, Short Circuit Indications Mains ON, Inverter		

Parameter	Details	Bidders Offer	Whether confirming to the specification Yes/No
	ON, Battery Low, Overload.		
Alarms (Audio)	For extreme battery low voltage.		
Meters	Meters – AC Volt Meter for input and output. DC Volt Meter, Frequency Meter for output in Analog / Digital Mode.		
Manuals	Operating and User manual to be Provided		
Name Plate in the UPS	Name plate in UPS-Riveted metal plates / Stickers		
Isolation Transformer	Isolation Transformer must be provided internally / externally at input.		
Software	Software for automatic shutdown of the system compatible with Linux (mandatory) and windows.		
Certification	SAMEER / ETDC / ERTL / NABL's Accredited Testing Laboratories Certification for any back up of each UPS Category Mandatory for this specification (issued within last 6 years)		
ISO	ISO Certification Mandatory for the Manufacturing Process		

COMPLIANCE STATEMENT FOR ITEM Code OL3000-30, OL3000-60, OL3000-120 AND OL3000-240

Parameter	Details	Bidders Offer	Whether confirming to the specification Yes/No
Capacity	3 KVA TRUE ONLINE UPS		
Back-up Time	For code OL3000-30 – 30 minutes For code OL3000-60 – 60 minutes For code OL3000-120 – 120 minutes For code OL3000-240 – 240 minutes		
Inverter Type	**Inverter Type** - IGBT (Make and current capacity to be specified by the tenderer)		
INPUT			
Mains Voltage Regulation	150 - 270V AC, SINGLE PHASE		
Input power factor	> 0.9		
Frequency with Tolerance	50 Hz, +/- 3 Hz		
Battery (Secondary Source)	AH and no. of Batteries shall be suitably selected for the respective minimum backup time of 70% Resistive Load. Minimum VAH rating of battery bank should be as given below:- 30 Minutes – 2350 VAH 60 Minutes – 4700 VAH 120 Minutes – 9400 VAH 240 Minutes – 18800 VAH Sealed maintenance free (SMF) type – AH and No. of Batteries shall be suitable selected for required backup time.		
DC Bus voltage	To be specified by the tenderer		
Make of the Battery	Specify the Manufacturer Make, Model and enclose the technical specification sheet. The		

Parameter	Details	Bidders Offer	Whether confirming to the specification Yes/No
	make and AH of the battery submitted for evaluation only will be accepted.		
Battery Storage Box	External Storage Box / MS-Rack for housing the Batteries.		
OUTPUT			
Nominal Voltage	**230V AC, Single Phase (+/-1%)**		
Voltage Regulation	± 1%		
Frequency	50 Hz, +/-(0.2) Hz		
Waveform	Pure Sine wave		
Load power factor	0.7 lag to unity		
OTHER / GENERAL DATA			
Overload Capacity	Overload Capacity – Withstand for 5 Minutes at 110% Load (3300 Watts Resistive Load / 2310 Watts Combinational Load).		
Total Harmonic Distortion	< 4% for Linear load and 5% for non linear load		
Efficiency	> 80%		
Ambient Temperature	To be specified by the tenderer (Preferable upto 50 Degree Celsius)		
Duty Cycle	Continuous		
Cooling	Forced air cooling		
Protections	1) Input, Output – Low and High 2) Battery low and high voltage 3) Input, output – Fuse 4) Battery - MCB/Fuse 5) Short circuit 6) Over load 7) Lightening		

Parameter	Details	Bidders Offer	Whether confirming to the specification Yes/No
Mobility	All UPS system fitted with castors for Mobility		
Controls	Manual By-pass Switch and static bypass switch to be provided with Indications		
Power sockets	2 Nos. (15 Amps. Capacity) sockets		
Trip Conditions	Over load, Over, Under voltage, Short Circuit Indications Mains ON, Inverter ON, Battery Low, Overload.		
Alarms (Audio)	For extreme battery low voltage.		
Meters	AC Volt Meter for input and out put, DC Volt Meter, Frequency Meter, AC load current for output in Analog / Digital mode		
Manuals	Operating and User manual to be Provided		
Name Plate in the UPS	Name plate in UPS-Riveted metal plates / Stickers		
Isolation Transformer	Isolation Transformer must be provided internally / externally at input.		
Software	Software for automatic shutdown of the system compatible with Linux (mandatory) and windows.		
Certification	SAMEER / ETDC / ERTL / NABL's Accredited Testing Laboratories Certification for any back up of each UPS Category Mandatory for this specification (issued within last 6 years)		
ISO	ISO Certification Mandatory for the Manufacturing Process		

COMPLIANCE STATEMENT FOR ITEM Code OL5000-30, OL5000-60, OL5000-120 AND OL5000-240

Parameter	Details	Bidders Offer	Whether confirming to the specification Yes/No
Capacity	5 KVA TRUE ONLINE UPS		
Back-up Time	For code OL5000-30 – 30 minutes For code OL5000-60 – 60 minutes For code OL5000-120 – 120 minutes For code OL5000-240 – 240 minutes		
Inverter Type	**Inverter Type** - IGBT (Make and current capacity to be specified by the tenderer)		
INPUT			
Mains Voltage Regulation	150 - 270V AC, SINGLE PHASE		
Input power factor	> 0.9		
Frequency with Tolerance	50 Hz, +/- 3 Hz		
Battery (Secondary Source)	AH and no. of Batteries shall be suitably selected for the respective minimum backup time of 70% Resistive Load. Minimum VAH rating of battery bank should be as given below:- 30 Minutes – 3950 VAH 60 Minutes – 7900 VAH 120 Minutes – 15800 VAH 240 Minutes – 31600 VAH Sealed maintenance free (SMF) type – AH and No. of Batteries shall be suitable selected for required backup time.		
DC Bus voltage	To be specified by the tenderer		
Make of the Battery	Specify the Manufacturer Make, Model and enclose the technical specification sheet. The make and AH of the battery submitted for evaluation only will be accepted.		

Parameter	Details	Bidders Offer	Whether confirming to the specification Yes/No
Battery Storage Box	External Storage Box / MS-Rack for housing the Batteries.		
OUTPUT			
Nominal Voltage	**230V AC, Single Phase (+/-1%)**		
Voltage Regulation	Voltage Regulation: 230V +/-1%		
Frequency	50 Hz, +/-(0.2) Hz		
Waveform	Pure Sine wave		
Load power factor	0.7 lag to unity		
OTHER / GENERAL DATA			
Overload Capacity	Overload Capacity: Withstand for 5 Minutes at 110% load (5500 Watts Resistive Load / 3850 Watts for Combinational Load).		
Total Harmonic Distortion	< 4% for Linear load and 5% for non linear load		
Efficiency	> 85%		
Ambient Temperature	To be specified by the tenderer (Preferable upto 50 Degree Celsius)		
Duty Cycle	Continuous		
Cooling	Forced air cooling		
Protections	1) Input, Output – Low and High 2) Battery low and high voltage 3) Input, output – Fuse 4) Battery - MCB/Fuse 5) Short circuit 6) Over load 7) Lightening		
Controls	Manual By-pass Switch and static bypass switch to be provided with Indications		
Power sockets	1 No.32 Amps. Capacity Terminal Block		
Trip Conditions	Over load, Over, Under voltage, Short Circuit Indications Mains ON, Inverter ON, Battery Low, Overload.		

Parameter	Details	Bidders Offer	Whether confirming to the specification Yes/No
Alarms (Audio)	For extreme battery low voltage.		
Meters	Meters – AC Volt Meter for input and output. DC Volt Meter, Frequency Meter for output in Analog / Digital Mode.		
Manuals	Operating and User manual to be Provided		
Name Plate in the UPS	Name plate in UPS-Riveted metal plates / Stickers		
Isolation Transformer	Isolation Transformer must be provided internally / externally at input.		
Software	Software for automatic shutdown of the system compatible with Linux (mandatory) and windows.		
Certification	SAMEER / ETDC / ERTL / NABL's Accredited Testing Laboratories Certification for any back up of each UPS Category Mandatory for this specification (issued within last 6 years)		
ISO	ISO Certification Mandatory for the Manufacturing Process		

For each item quoted in the Tender, the samples should be submitted indicating the make, model number and brouchers / specification of the items for benchmark testing by ELCOT as per Appendix-3 of the Tender. Already approved Make and Model need not be submitted for fresh evaluation.

The bidders have to submit the samples **atleast 7 days after tender opening date, during the office hours, as per the date indicated in this tender document.**